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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,945	06/30/2005	Matthew G. Boston	GC705-2-US	3223

7590 03/29/2006

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EXAMINER

PADEN, CAROLYN A

ART UNIT	PAPER NUMBER
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1761

DATE MAILED: 03/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/500,945	Applicant(s) BOSTON ET AL.	
	Examiner Carolyn A. Paden	Art Unit 1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-9, 15, 16, 25, 26 and 28 is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 10-14, 17-24, 27 and 29-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The rejections of the claims under 35 USC 112 and 35 USC 102 have been dropped in response to applicants' amendments to the claims.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 & 4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Seaver (1946 article) and see Table II.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seaver (1946 article).

Seaver discloses that solutions of carbohydrates and amino acids readily form browning compositions (see Table II). In Table I ascorbic acid was heated with glycine to form a browning solution. The claims appear to differ from Seaver in the recitation that lysine is the selected amino acid

and in the recitation that di-keto gluconic acid forms a browning composition with an amino acid. Given the broad teachings of Seaver, it would have been obvious to one of ordinary skill in the art to expect that lysine would provide browning equivalent to that shown in the Seaver composition. It is appreciated that di-keto gluconic acid is not mentioned but this compound is described in the specification as being an ascorbic acid intermediate. Given the treatment of ascorbic acid in Seaver, one of ordinary skill in the art would have expected that intermediates formed.

Claims 1, 3-5, 10-14, 17-24, 27 & 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurrell (Food Flavors) and Seaver taken together.

Morton discloses the Maillard reaction, at page 400, as being a reaction between a reducing sugar and an amino acid. At page 402, the reaction between a dicarbonyl and an amino acid is disclosed as a subsequent reaction. Both of these reactions are known in the art to result in browning products (page 402, figure VI.2). Lysine is especially mentioned in the Maillard reaction at the top of page 403. Seaver discloses that solutions of carbohydrates and amino acids readily form browning compositions (see Table II). In Table I ascorbic acid was heated with

glycine to form a browning solution. The claims appear to differ from Seaver in the recitation that lysine is the selected amino acid and in the recitation that di-keto gluconic acid forms a browning composition with an amino acid. So even though the particular sugar acid of claim 3 is not mentioned in the references, it would have been obvious to expect it, as a di-carbonyl sugar acid, to form a browning compound in the Morton reaction. It is appreciated that all of the uses of the composition are not mentioned in Morton, but the use of the product does not carry any patentable weight to the composition.

Claims 6-9, 15-16, 25, 26 & 28 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn A Paden whose telephone number is (571) 272-1403. The examiner can normally be reached on Monday to Friday from 7 am to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano, can be reached on (571) 272-1398 or by dialing 571-272-1700. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CAROLYN PADEN 3-23-06
PRIMARY EXAMINER 1761